

THF Lecture Series

IS IT TIME FOR A NEW APPROACH TO EDUCATION IN SINGAPORE?

Towards Education for a Flourishing Life

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Introduction

Singapore's education system has been much lauded for its achievements in delivering quality universal schooling to its citizens. It consistently tops international educational rankings, produces students that win international competitions, and churns out graduates that are among the most desired in the world. It is no surprise that the country is a frequent stop for policy-makers and other visitors all over the world wishing to understand and even emulate the secrets to its success.

Singapore's stellar performance in the PISA (Programme for International Student Assessment) in particular has garnered much attention. Although a useful objective indicator of educational achievement in the important areas of reading, science, mathematics and creative problem-solving, the index is nevertheless a narrow measure of what education should achieve. Still, this has not stopped many from using it as the only measure. The result has been what is best described as the tyranny of PISA. Even in countries, including Singapore, where officials say that they "do not make policy to the PISA", high rankings nevertheless have been used to validate existing systems, as proof that they are on the right track. It may indeed be true that in Singapore the pursuit of higher rankings does not drive the education system, but other factors such as extreme competition, economic-centric thinking and instrumentalism do, which result in good rankings.

My thesis is that although Singapore's accomplishment in PISA is laudable, it obscures some serious questions about the trade-offs that are made along the way, and more philosophically, the very purpose and meaning not just of education but also of life itself. In this paper, I will address some of these questions. I will also propose that the purpose of education is to prepare children to be adults that lead flourishing lives. Finally I will also sketch an outline of a Flourishing Life Index that can then be used to create a wider and meaningful index and ranking system for education to replace PISA and other similarly narrow measures.

Tyranny of PISA and other rankings

PISA is a once-in-three-years international education benchmarking index created by the OECD that tests the skills and knowledge of 15-year-old students. The latest, in 2012, covered 65 economies. PISA assesses the student's ability to apply knowledge and skills in mathematics, reading and science.

In Singapore, over 5,500 students from 166 public schools and six private schools took the two-hour test of open-ended and multiple choice questions in 2012 (Davie, 2014). Singaporeans ranked top with South Korea on problem-solving; second in mathematics; and third in both reading and science (MOE, 2013). Some 29% reached the highest proficiency levels of 5 or 6 in mathematics, compared to the OECD average of 11% (OECD, 2014a). Although Singapore has been criticised for stressing rote learning and hence producing uncreative students, it scored joint first with South Korea in the creative problem-solving part of the test. This part measures the student's ability to systematically explore a complex problem scenario and

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develop multi-step solutions that address constraints and adapt to feedback received (OECD, 2014b).

Other top-scoring regions of PISA included Finland and the East Asian regions Japan, Macau, Hong Kong, Taipei and Shanghai (OECD, 2014a). Countries or regions that scored above the OECD average were mostly European: Canada, Australia, Finland, England, Estonia, France, the Netherlands, Italy, Czech Republic, Germany, the United States and Belgium.

Besides PISA, other rankings affirm Singapore's high academic achievement. One is the Trends in International Mathematics and Science Study (TIMSS). Conducted every four years, it seeks to measure trends in mathematics and science achievement at Primary 4 (Grade 4) and Secondary 2 (Grade 8) levels. Over 60 countries took part in 2011 (TIMSS, 2015). That year, 6,500 Primary 4 students and 6,000 Secondary 2 students took the test in Singapore. The country emerged top in two categories, second in another two, and fourth in the fifth (see Figure1). The other top countries are similar to PISA: Finland and East Asia's Hong Kong, Japan, Taipei and South Korea (Sim, 2012).

Subjects/Year	Primary 4	Secondary 2
Maths	1st	2nd
Science	2nd	1st
Reading	4th	N/A

Figure 1. Singapore TIMSS Results

It should be noted that in the light of these results, my criticisms of Singapore's education system are not that it did not deliver any results. By other measures, Singaporeans also rank very highly, for instance in the United Nations Millennium Goal for universal primary education (UNDP, 2015). That is, Singapore children benefit from a well-coordinated and successful education that would be the envy of most of the countries in the world where even basic education is an issue. Nevertheless, this system suffers from fundamental problems dealt with below.

PISA and TIMSS do serve a useful purpose. TIMSS states that it seeks to help education ministries monitor and compare system-level achievement, sets goals and standards, stimulate curriculum reform, and improve teaching and learning in the areas tested. These rankings also identify successful countries that can become models for others. Indeed, using the rankings to justify the success or criticise the failure of a country's education system has increasingly become a part of the discourse in participating nations as well as globally. Unfortunately, for some countries, using PISA has become the main aim or one of the aims of education policies. Other wider and more important education goals are sacrificed along the way. Debate on other concerns is either absent or dismissed by reference to successful PISA results. The result is the tyranny of PISA.

Criticisms of PISA

This is not to say that PISA does not have its fair share of critics. Unfortunately, many criticisms tend to be those from poor-performing countries. Educators and academics worldwide have problematised PISA in various ways. Martin Stephen, a former High Master of the renowned St Paul's School in the United Kingdom, once remarked that "we should address another serious problem: PISA's credibility as an accurate assessment of how we teach our children" (Stephen, 2013).

In 2014, 120 educators from 12 countries including Germany and the United States wrote a letter to PISA Director Dr Andreas Schleicher expressing great anxiety regarding PISA's grave consequences (The Guardian, 2014). They said PISA had led to increasingly frequent testing and a broader reliance on quantitative measures. The over-emphasis on PISA had also led to turning "short-term fixes" for the purposes of climbing up the ranks every three years. This was in contrast to academic studies that show that educational success requires longer-term planning and implementation, their letter said. In educating for PISA, the increased testing and constraints on curriculum to bolster PISA results had led to less pedagogical autonomy and more stress. Finally, PISA drew focus away from less quantitatively measurable educational aims such as cultural and civic understanding or artistic creativity. This "PISA regime" has run errant, increasing overall student and teacher stress, "which endangers the wellbeing of students and teachers." This essay is of a similar view. The government has said:

"The purpose of our participation in PISA is not to get a good global ranking.... [It aims] to find out how well our students are being equipped with important life skills that are important for their future....Our students' good performance attests to their deep conceptual understanding and good thinking skills honed through the rich learning experiences provided by our schools and teachers.(MOE, 2014)"

But what are the costs of the intellectually competent? Has our system, fuelled by a competitive and instrumentalist mindset, produced students with little joy for learning for its own sake? Moreover, what is lost when countries educate for PISA? This essay suggests that by overtly emphasising PISA and quantifiable academic achievement, countries have inadvertently taken the inputs, outputs and opportunity costs of their educational systems for granted.

The cost of achievement in Singapore

In Singapore, the achievement in the narrow fields of maths, science and reading as evidenced by high PISA scores comes with heavy costs. This achievement is driven by the view that education's main role is to produce good workers, that learning is instrumental in value, and that the best results are obtained via a highly competitive system. The intense competition also means that parents are not satisfied with the

high quality of teachers, curriculum and school administration, and heavy demands are made on students in homework and on their time in particular. Parents thus turn to tuition. A Straits Times study released in July 2015 showed that 70% of Singaporean parents send their children for tuition (Davie, 2015). In fact, the quest for academic achievement begins early with four in 10 parents sending their pre-school-aged children to tuition or enrichment classes (Teng, 2015). Strikingly however, only three in 10 parents indicated that their child's academic results improved "by a noticeable extent." (Davie, 2015). Parents are instead motivated to send their children to tuition to "keep up with others", thus highlighting the rhetoric of fear surrounding education (Davie, 2015).

Another study conducted by The Straits Times in 2008 found that the most popular subjects for tuition in general education were Mathematics and the English Language (Toh, 2008). This is unsurprising because these two subjects are two out of the four examinable subjects for the PSLE (Primary School Leaving Examinations) and feature prominently in the GCE "O" Levels later on.

Another cost is monetary. One study in 2008 found that 97% primary, middle and senior secondary school students attended tuition, with parents spending \$820 million annually. By 2012/2013, a Household Expenditure Survey showed that this had increased to \$1.1 billion a year, nearly double the \$650 million a year found by the same survey in 2003.

The trend towards "shadow education" is worldwide and increasing, reports Mark Bray and Chad Lykins in *Shadow Education: Private Supplementary Tutoring and Its Implications for Policy Makers in Asia*. They are especially prevalent in East Asian countries, which have similarly competitive education systems as Singapore. For example, in South Korea 90% of elementary students attend tuition, and in Hong Kong, 85% of senior secondary students do so.

Tuition does have benefits. It can help slow learners keep up, help high achievers reach higher, contribute human capital for economic development, and keep adolescents occupied in a constructive way.

However, Bray and Lykins also warn of the negatives: Tuition may dominate the lives of young people and their families, leave the former with less time available for sports and other activities, damage their health, maintain and exacerbate social inequalities, and can create inefficiencies in education systems.

In Singapore these dangers are playing out in stark ways. Other costs include students not having enough sleep. The result is a poor quality of life for the students. Indeed those who spend almost all their time studying in and out of school might be described as being robbed of their childhood. In a 2013 dialogue with students on PSLE, the Ministry of Education (MOE) found that students recalled their final year of primary school as a "hectic time", always having to "rush for tuition classes" (MOE, 2013). One student even remarked how there was "no childhood, and too much stress and pressure" during those primary school days (MOE, 2013). These are similar to the concerns in other East Asian countries that do well in PISA.

The obsession with tuition

There are two causes for this national obsession with tuition. The first, already mentioned, is the highly competitive system where students are finely sieved and sorted to schools of different ranks and to classes within each school according to examinations results; one or two marks may make a major difference to whether a child makes it to the desired schools. Parents under such a system seek to maximise the chances of better marks by turning to tuition or generally urging their children to work harder. Some also use other methods besides tuition. Christopher Gee (2012) writes:

“Academic credentialism (defined as the excessive reliance on academic qualifications in employment or in ascertaining social status) has combined with our Singaporean kiasu nature to create a multitude of educational arms races in which families are driven to spend more and more time and money on private tutoring, buying homes within one- or two-kilometres of primary schools and other investments in our children’s education, all in the name of giving them a head-start in life. If tuition is received by some children in a class and their marks improve, others will feel that they need to follow until almost everyone is receiving tuition.”

The second reason is instrumental, economic thinking of education that pervades the whole system: that the most important goal of education is to produce good workers for the economy. This is an attitude that parents and ultimately children also eventually adopt. Hence, other aspects of education such as sports, knowledge for its own sake, social connectedness, political consciousness, are neglected. Parents only care about examinable subjects. Schools, teachers and principals also propagate such an outlook. Subjects supposedly hard to score in, such as literature, are dropped, often at the urging of principals. Sports are always seen as a way to improve the ranking of a school rather than a good in itself. Teachers who try to teach in novel and interesting ways that lead to more rounded education outcomes are told to stick to the tried-and-tested method of teaching to score at tests and rote learning. Even initiatives to lessen the load by teaching less content or the introduction of project work just move the competition elsewhere. They may have some positive intended effects, but ultimately are seen as different ways of chasing after grades.

The need for flourishing life

The ultimate cost of the highly competitive and instrumentalist education system has been its detrimental effect on children’s flourishing. Children may do well in exams, but they are not given the chance to blossom as people, and lack social, emotional, physical, psychological, spiritual and values development. As documented above, they lead lives dominated by fear of falling behind, excessive work, insufficient sleep, and lack of variety in other pursuits and the pleasures that follow.

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When they become adults, they end up also leading non-flourishing lives. According to a recent Gallup poll on well-being, Singaporeans ranked 97th among 145 countries, based on interviews (Gallup-Healthways, 2015). The five elements of well-being used in the survey are:

- Purpose: Liking what you do each day and being motivated to achieve your goals
- Social: Having supportive relationships and love in your life
- Financial: Managing your economic life to reduce stress and increase security
- Community: Liking where you live, feeling safe and having pride in your community
- Physical: Having good health and enough energy to get things done daily

Singapore placed 9th in financial well-being, but was 111th, 123rd, 72nd and 137th, for the “purpose”, “social”, “community” and “physical” categories, respectively. This survey shows that Singaporeans have indeed attained what they set out to achieve: economic well-being. But this has come at a cost to other aspects of their lives.

Professed educational goals in Singapore

Like many other countries, Singapore’s education system professes goals that go beyond what they have been reduced to. Two documents are of especial importance. The first is called “21st Century Competencies”. Figure 2 depicts the core values and skills the education system seeks to instil (MOE, 2015a). Students are supposed to emerge from the system as confident individuals, self-directed learners, active contributors and concerned citizens.



Figure 2. Ministry of Education — 21st Century Competencies

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Source: “21st Century Competencies”, Ministry of Education (MOE, 2015a)

The Ministry states:

“Globalisation, changing demographics and technological advancements are some of the key driving forces of the future. Our students will have to be prepared to face these challenges and seize the opportunities brought about by these forces. To help our students thrive in a fast-changing world, MOE has identified competencies that have become increasingly important in the 21st Century. These competencies, represented in the following framework, underpin the holistic education that our schools provide to better prepare our students for the future.”

Although MOE emphasizes the importance of a holistic education, the purpose —as can be seen by the statement that “these competencies will enable our young to capitalise on the rich opportunities of the new digital age, while keeping a strong Singapore heartbeat” — are still cast in instrumental terms. Nevertheless, the document acknowledges the importance of other aspects of school learning besides subject learning and socialisation to be Singaporeans.

The second document of importance is the “Desired Outcomes of Education”, also from the ministry, which sets out objectives for development at each key learning stage from primary to upper secondary. Figure 3 shows the vision of the Singaporean student after post-secondary student is an all-rounded one (MOE, 2015b). Not only does he/she grow intellectually, but also develops key values such as courage and resilience as well as skills such as communication and an appreciation for aesthetics.

At the end of <u>Primary</u> school, students should:	At the end of <u>Secondary</u> school, students should:	At the end of <u>Post-Secondary</u> education, students should:
be able to distinguish right from wrong	have moral integrity	have moral courage to stand up for what is right
know their strengths and areas for growth	believe in their abilities and be able to adapt to change	be resilient in the face of adversity
be able to cooperate, share and care for others	be able to work in teams and show empathy for others	be able to collaborate across cultures and be socially responsible
have a lively curiosity about things	be creative and have an inquiring mind	be innovative and enterprising
be able to think for and express themselves confidently	be able to appreciate diverse views and communicate effectively	be able to think critically and communicate persuasively
take pride in their work	take responsibility for own learning	be purposeful in pursuit of excellence
have healthy habits and an awareness of the arts	enjoy physical activities and appreciate the arts	pursue a healthy lifestyle and have an appreciation for aesthetics
know and love Singapore	believe in Singapore and understand what matters to Singapore	be proud to be Singaporeans and understand Singapore in relation to the world

Figure 3. Ministry of Education - Desired Outcomes of Education

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Source: "Desired Outcomes of Education", Ministry of Education (MOE, 2015b)

These goals are laudable. However the reality on the ground is that many of them are sacrificed in the pursuit of grades or become mere catchwords ignored because they are perceived as having little immediate, instrumental and economic values.

It is my argument that the lack of well-being and human flourishing in Singapore has its roots in large part in the formal education system that we have developed and the shadow education system that we have created. Together both systems excel in delivering academic results, but together they have exacted costs in other aspects of education and life.

Impact on flourishing

The greatest impact is in the lack of flourishing among children, and as the survey from Gallup shows, eventually in adults. One obstacle to a flourishing education is the tyranny of the PISA and similar indices. Other existing indices are insufficient guides in engendering this change the Singaporean system needs to see. The indices such as the UNDP Education Index the World Inequality Database on Education (WIDE) and the UNESCO Education for All Development Index are useful but mainly focus on the basics such as access to primary education and gender differences in educational levels. They are however better indicators of deficits than that of excellence.

What Singapore, indeed what the world, needs is a different kind of index — an index for the future. This essay thus suggests that the construction of a new index grounded in Western and Eastern philosophies can pave the way forward in both a flourishing education and a flourishing life. The following segment of this essay thus explores some sources of inspiration from Western and Eastern thinkers.

Perhaps it is worthwhile to return first to the core purpose of education. For Israel Scheffler, education in a democratic context is aimed at "liberat[ing] the mind, strengthen[ing] its critical powers, inform[ing] it with knowledge and the capacity for independent inquiry, engag[ing] its human sympathies, and illuminat[ing] its moral and practical choice, in short to enhance rationality" (cited in Park, 1997, p.10). To Scheffler, the goal of education is essentially to "achieve human dignity" (p.10). In other words, education is meant to help human beings realise their humanity and to live this humanity to the fullest. For Scheffler, the reverse holds true — a full, ideal life is but an educational process. Education is inseparable from that which is ideally human, and is an end in itself.

A successful educational programme is thus only so in relation to a fully realised human life, of which there is no shortage of scholarship. Confucius for instance once affirmed that the "ideal kind of human life, is to achieve humanity" (cited in Siegel & Scheffler, 1997, p.15). This ideal life would see the "human spirit [flower]" in triumphant freedom. Aristotle, who wrote of eudaimonia, or flourishing in English, would concur. But happiness is not simply "some beaming, bovine

contentment” to Aristotle (Eagleton, 2008, p.166). For him, an ideal life is a flourishing, multifaceted one (though in his time, women and slaves were denied this life). It comprises “external goods” such as wealth and reputation, “goods of the body” such as health and sensual pleasure, and finally the “goods of the soul” such as virtue and wisdom (Marangos and Astroulakis, 2010, p. 553). Of all these goods, Aristotle found those of the soul most important for they were ends in themselves. Interestingly, Aristotle never saw a flourishing life as an individual affair. To him, a vibrant political community was a cornerstone of a flourishing life. It is only in an established community of persons that an individual can actively involve oneself to connect with and better the lives of others.

More contemporary scholars such as Terry Eagleton continue to echo Aristotle’s ideas. Like Aristotle, Eagleton believed that flourishing sprung from living a certain way full of “quality, depth, abundance, and intensity of life” (Eagleton, 2008, p. 164). Eagleton purported that achieving this sort of life was contingent on developing rich relationships with others. Referring to yet another contemporary scholar Julian Baggini, Eagleton saw relationships with others full of “altruism, love... [for] the greater good of the species” key to this way of life (Eagleton, 2008, p. 171). Here, Eagleton employs the metaphor of a jazz group most usefully (Eagleton, 2008, p. 171):

“A jazz group which is improvising obviously differs from a symphony orchestra, since to a large extent each member is free to express herself as she likes. But she does so with a receptive sensitivity to the self-expressive performances of the other musicians. The complex harmony they fashion comes not from playing from a collective score, but from the free musical expression of each member acting as the basis for the free expression of the others. As each player grows more musically eloquent, the others draw inspiration from this and are spurred to greater heights. There is no conflict here between freedom and the “good of the whole”, yet the image is the reverse of totalitarian.”

The new index

A new index that sets the agenda for a flourishing education should thus measure the extent to which an education enables flourishing, of living a fully realised human life. This essay certainly does not suggest that the elements of a flourishing life are quantifiable and measurable. It finds it worthwhile however to introduce a schema that both policy-makers and citizens can use to have an overview of the various elements of flourishing life and how they relate to one another. Despite my critique of PISA and quantifiable academic achievement, the proposed index will not neglect gauges on intellectual ability altogether but will incorporate other key aspects of a flourishing life. These include measures on the role of arts and culture, moral and philosophical values, sports, community ties, social and political engagement, and personal ties to family and friends.

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The index will thus consist of two layers: one, the basic conditions that allow for flourishing, and the other the elements of flourishing itself. The basic layer consists of economic sufficiency and security, shelter, personal safety and security, health and freedom. Though flourishing is possible even without these conditions, it is made more difficult in their absence. The second layer comprises measures of flourishing:

Mind: The intellect
Heart: Connection to other people
Body: Physical activity
Soul: Transcendence through the arts and spirituality
Hands: Engagement with the wider social and political world

These areas of flourishing can be manifested in different spheres of activity: the economic, political, social and personal.

It is my belief that the role of education is to bring up the young in order for them to flourish both as children and when they become adults. Turning out good workers is an important role of education. But it should not be the main or only one. To focus on the economic is to short-change ourselves as human beings.

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